CLAIM 1

Claim 1 is directed toward:

> A method, comprising:
>
> activating an inactivated reference voltage and deactivating an active reference voltage **in response to an input voltage crossing an inactivated reference voltage**; and,
>
> changing an output **in response to said input voltage crossing said activated reference voltage**.

Some portions of claim 1 that are not disclosed by Saunders have been replicated above in bold type.

Saunders discloses a receiver wherein the output of the receiver changes in response to a clock or strobe signal and not in response to "said input voltage crossing said activated reference voltage" as claimed in claim 1.

Reference is made to Figs. 3, 4, and 5A of Saunders. In all of these embodiments, the output of the receiver is governed by the state of the latch (310). The state of the latch is governed by the state of the external clock or strobe at input (316) of the latch (310). As shown in Fig. 4, as an example, the output of the receiver is the output Q of the latch (310). The output Q only changes to equal the input D when the clock or strobe at the input to the latch (310) transitions or is at a particular state. The input to the receiver may change between states, however, the output will only change upon transitioning of the clock or strobe. Thus, the output does not change "in response to said input voltage crossing said activated reference voltage" as claimed in claim 1. Rather, the output changes in response to a clock or strobe signal input to the latch (310). Therefore, Saunders does not disclose all the elements of claim 1.

The specification of Saunders has several references to the clock or strobe input to the latch (310). The summary at column 2, lines 6-8 states, in part, "the latch receives the voltage state indication and couples it to its output in response to a timing signal..." Accordingly, the output is in response to a timing signal, which is the

clock or strobe. Other references are made to the clock signal; however, the input (316) to the latch (310) is not described at all in the specification.

The MUX (420) disclosed in Saunders selects an output equal to either input (422a) or input (422b) based on the output state of the latch (310). As set forth above, the output of the latch (310) depends on the state of the clock or strobe input to the latch (310). Accordingly, Saunders cannot disclose "activating an inactivated reference voltage and deactivating an active reference voltage **in response to an input voltage crossing an inactivated reference voltage**" as claimed in claim 1.

As set forth above, Saunders does not disclose all the elements of claim 1. Therefore, Saunders cannot anticipate claim 1.

For the reasons described above, the Applicants contend that the rejection of claim 1 has been overcome. The Applicants request reconsideration of the rejection.

CLAIM 2

Claim 2 is allowable by way of its dependence on allowable claim 1 and for other reasons. The Applicants request reconsideration of the rejection.

CLAIM 3

Claim 3 is directed toward:

> A method, comprising:
>
> activating a first reference voltage;
>
> changing an output **in response to an input voltage crossing said first reference voltage**; and,
>
> activating a second reference voltage and deactivating said first reference voltage **in response to said input voltage crossing said second reference voltage**.

Some portions of claim 3 that are not disclosed by Saunders have been replicated in bold type.

As set forth in the rebuttal to the rejection of claim 1, Saunders does not disclose "changing an output **in response to an input voltage crossing said first reference voltage**" as claimed in claim 3. Rather, Saunders discloses possibly changing an output based on the state of the external clock or strobe.

As also set forth above, activation or deactivation of reference voltages in Saunders is controlled via the MUX (420). The MUX (420) selects the reference voltage depending on the input to the MUX (420), which is the output of the receiver. As described above, the output of the receiver is selected based on the state of the external clock or strobe. Accordingly, Saunders cannot disclose "activating a second reference voltage and deactivating said first reference voltage in response to said input voltage crossing said second reference voltage" as claimed in claim 3.

As set forth above, Saunders does not disclose all the elements of claim 3 and cannot anticipate claim 3. Therefore, the Applicants request reconsideration of the rejection.

CLAIM 4

Claim 4 is allowable by way of its dependence on allowable claim 3 in addition to other reasons. Accordingly, the Applicants request reconsideration of the rejection.

CLAIM 5

Claim 5 is dependent on claim 4 and is directed toward:

> The method of claim 4, further comprising:
>
> changing said output **in response to said input voltage crossing said second reference voltage**; and,
>
> activating said first reference voltage and deactivating said second reference voltage **in response to said input voltage crossing said first reference voltage**.

Some portions of claim 5 that are not disclosed by Saunders have been replicated above in bold type.

As set forth above, Saunders discloses activating and deactivating reference voltages and changing the output based on the state of an external clock or strobe. Saunders does not disclose "changing said output **in response to said input voltage crossing said second reference voltage**" as claimed in claim 5. Likewise, Saunders does not disclose "activating said first reference voltage and deactivating said second reference voltage **in response to said input voltage crossing said first reference voltage**" as also claimed in claim 5.

Accordingly, Saunders does not disclose all the elements of claim 5 and cannot anticipate claim 5. Therefore, the Applicants request reconsideration of the rejection.

CLAIM 6

Claim 6 is independent and is directed toward:

> A method of receiving a signal, comprising:
>
> comparing an input to a first reference that is activated and a second reference that is deactivated; and,
>
> changing an output **when said input crosses the one of said first reference and said second reference that is activated**; and,
>
> activating said second reference and deactivating said first reference **when said input crosses the one of said first reference and said second reference that is deactivated**.

Some portions of claim 6 that are not disclosed by Saunders have been replicated above in bold type.

As set forth above, Saunders changes outputs and activates or deactivates reference voltages depending on the state of an external clock or strobe. Accordingly, Saunders cannot disclose "changing an output **when said input crosses the one of said first reference and said second reference that is**

activated" as claimed in claim 6. Likewise, Saunders cannot disclose "activating said second reference and deactivating said first reference **when said input crosses the one of said first reference and said second reference that is deactivated**" as also claimed in claim 6.

Accordingly, Saunders does not disclose all the elements of claim 6 and cannot anticipate claim 6. Therefore, the Applicants request reconsideration of the rejection.

CLAIM 7

Claim 7 is allowable by way of its dependence on allowable claim 6 in addition to other reasons. Accordingly, the Applicants request reconsideration of the rejection.

CLAIM 8

Claim 8 is independent and is directed toward:

> An apparatus, comprising:
>
> means for activating an inactivated reference voltage and means for deactivating an active reference voltage **in response to an input voltage crossing an inactivated reference voltage**; and,
>
> means for changing an output **in response to said input voltage crossing said activated reference voltage**.

Some portions of claim 8 that are not disclosed by Saunders have been replicated above in bold type.

As set forth above, Saunders only changes the output and the reference voltages depending on the state of the external clock or strobe. Accordingly, Saunders cannot disclose "means for activating an inactivated reference voltage and means for deactivating an active reference voltage **in response to an input voltage crossing an inactivated reference voltage**" as claimed in claim 8. Likewise,

Saunders cannot disclose "means for changing an output **in response to said input voltage crossing said activated reference voltage**" as is also claimed in claim 8.

Accordingly, Saunders does not disclose all the elements of claim 8 and cannot anticipate claim 8. Therefore, the Applicants request reconsideration of the rejection.

CLAIM 9

Claim 9 is allowable by way of its dependence on allowable claim 8 in addition to other reasons. Accordingly, the Applicants request reconsideration of the rejection.

CLAIM 10

Claim 10 is independent and is directed toward:

> An apparatus, comprising:
>
> a first comparator, having a first output, that compares a first reference to an input signal;
>
> a second comparator, having a second output, that compares a second reference to said input signal;
>
> a selector that passes one of said first output and said second output to a receiver output depending upon which of said first reference and said second reference is activated; and,
>
> an activator/deactivator that controls said selector **depending upon the state of said first output and said second output**.

Some portions of claim 10 that are not disclosed by Saunders have been replicated in bold type.

Claim 10 includes "an activator/deactivator that controls said selector depending upon the state of said first output and said second output." According to the Office Action, the selector disclosed in Saunders is the MUX and latch (310,

420). As described above, the MUX and latch (310, 420) disclosed in Saunders are controlled by the output of the receiver and are dependent on the state of the external clock or strobe.

The selector of claim 10, on the other hand, is controlled by the activator/deactivator that "controls said selector **depending upon the state of said first output and said second output**." Therefore, the claimed activator/deactivator and selector are not even similar to the MUX and latch (310, 420), which depend on the state of the external clock or strobe as described above.

Accordingly, Saunders does not disclose all the elements of claim 10 and cannot anticipate claim 10. Therefore, the Applicants request reconsideration of the rejection.

CLAIM 11

Claim 11 is allowable by way of its dependence on allowable claim 10 in addition to other reasons. Accordingly, the Applicants request reconsideration of the rejection.

CLAIM 12

Claim 12 is independent and is directed toward:

> An apparatus, comprising:
> a first reference voltage;
> a second reference voltage;
> an input signal;
> a MUX that selects one of the results of a first comparison between said first reference voltage and said input signal and a second comparison between said second reference voltage and said input signal **based upon which of said first reference voltage and said second reference voltage is closer to said input signal**.

Some portions of claim 12 that are not disclosed by Saunders have been replicated above in bold type.

As set forth above, the MUX and latch (310, 420) disclosed in Saunders select a signal based on the output of the receiver when the external clock or strobe is in a specific state.

The MUX in claim 12, on the other hand, selects "one of the results of a first comparison between said first reference voltage and said input signal and a second comparison between said second reference voltage and said input signal **based upon which of said first reference voltage and said second reference voltage is closer to said input signal**." The selection is not based on an external clock or strobe as disclosed by Saunders.

Accordingly, Saunders does not disclose all the elements of claim 12 and cannot anticipate claim 12. Therefore, the Applicants request reconsideration of the rejection.

CLAIM 13

Claim 13 is allowable by way of its dependence on allowable claim 12 in addition to other reasons. Accordingly, the Applicants request reconsideration of the rejection.

CLAIM 14

Claim 14 is independent and is directed toward:

> An apparatus for detecting low-to-high and high-to-low transitions on an input signal, comprising:
>
> a first reference voltage that is compared to an input signal and detects low-to-high transitions **when said input signal crosses from lower than said first reference voltage to higher than said first reference voltage**;

a second reference voltage that is compared to said input signal and detects high-to-low transitions **when said input signal crosses from higher than said second reference voltage to lower than said second reference voltage** wherein said first reference voltage is lower than said second reference voltage.

Some portions of claim 14 that are not disclosed in Saunders have been replicated above in bold type.

As set forth above, the comparisons in Saunders depend on the state of the external clock or strobe. Claim 14, on the other hand, compares the input signal and the first reference voltage "when said input signal crosses from lower than said first reference voltage to higher than said first reference voltage." Likewise, the input signal is compared to the second reference voltage "when said input signal crosses from higher than said second reference voltage to lower than said second reference voltage." These comparisons, unlike Saunders, are not dependent on the state of the external clock.

Accordingly, Saunders does not disclose all the elements of claim 14 and cannot anticipate claim 14. Therefore, the Applicants request reconsideration of the rejection.

CLAIM 15

Claim 15 is allowable by way of its dependence on allowable claim 14 in addition to other reasons. Accordingly, the Applicants request reconsideration of the rejection.

All of the pending claims are believed to be in condition for allowance and a notice to that effect is earnestly solicited.

Respectfully submitted,
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